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A scale of weekly psychomotor activity from the perspective of personal safety in a complementary framework

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Abstract:

Background and Study Aim: The concept of 'personal safety' encompasses concern for health without assigning hierarchical weight to its key components: physical, mental and social. However, this perspective separates individual responsibility for the various components of health. The primary responsibility for the physical and mental health of an adult lies with the individual themselves. Parents or other legal guardians are directly responsible for the personal safety of minors. Responsibility for social health lies with the governments of individual states. Whilst governments have the tools to control and impose restrictions on individuals who harm physical or mental health (or both dimensions of health simultaneously), societies are no longer in such a comfortable position. On the contrary, due to the passivity of governments, and even more so as a result of the creation of counterproductive laws, the spread of numerous pathologies is becoming a common occurrence. Sanctions against the perpetrators of the most heinous crimes are often mitigated, yet governments do not face the courts of justice. A key factor in the deepening crisis of personal security within the global society of the Internet and AI is the lack of coherent recommendations from the scientific community, including those of a complementary nature. The aim of this work is to propose an original scale of weekly psychomotor activity, with the potential for its application beyond scientific research.

Material and Methods: : The Weekly Psychomotor Activity Scale (WPAS) is somewhat opposed to the 'physical activity' paradigm. WPAS Index '0' indicates the 'counterproductive' category of stimuli (sedentary lifestyle, particularly work at a computer); '1 to 7' indicate stimuli that are 'increased impulse force without guaranteeing an optimal level of personal safety'; '8 to 10' indicate stimuli that have a 'positive impact on personal safety.

Results: Effective use of the WPAS also requires, particularly in published academic works, a clear distinction between activities which, in the propaganda surrounding these sports, are disguised under the appealing name of 'mixed martial arts', and those that are genuinely extreme (without people maiming one another), which carry a high risk of loss of life or health. Although some of these activities qualify as extreme sports, even with Olympic status, the majority do not meet the criteria for inclusion in WPAS. The most striking example is mountaineering, apart from isolated, unique feats involving a high risk of loss of life or health.

Conclusions: The inclusion of WPAS in scientific analyses of indicators recorded particularly during interdisciplinary research opens up new avenues for cognitive and practical applications. Even if, in the initial conceptualisation of research projects involving human subjects, the factor

Dictionary:

The Delphi method (Delphi technique) technique) – a method of group decision-making and forecasting that involves successively collating the judgments of experts [2].

Budo (Budō) – originally a term denoting the "Way of the warrior", it is now used as a collective appellation for modern martial arts of *kendō, jūdō, kyūdo* and so on. The primary objective of these 'martial ways' is self-perfection (*ningen-kesei*) [9].

of weekly psychomotor activity appears to be of little significance, new scientific discoveries, even after many years, present an opportunity to apply the innovative method of reviewing omitted implication. This recommendation refers to the not always recognised dimension of scientific solidarity and responsibility for the collective fulfilment of science's social mission (not to discard raw research data and to be open to sharing it with other researchers whilst respecting the principles of priority and reciprocity).

Keywords: extreme sport, health, neogladiatorialism, omitted implications

I**ppon** – one point. Achieved through the execution of a valid technique on the opponent [9].

Waza-ari – a *jūdō* term for a technique that cannot be regarded as a full *ippon*, but is very close rule book *kendō* competition, a valid strike is. "An accurate strike or thrust made onto *datotsu-bui* (targets) of the opponent's *kendō-gu* (armour) with the *shinai* at its *datotsu-bu* (striking edge) in high spirit and correct posture, being followed by *zanshin* (continued alertness)" [9].

1. Introduction

Personal safety is a multifaceted phenomenon, but from a methodological perspective it remains a public health issue that has not been sufficiently explored in research and where prevention has been even more neglected. Although the central issues of this phenomenon are health and the protection of life, its global status points to the expansion of deeply conflicting trends. With this statement, we enter the difficult terrain of conflicting political and economic interests, as well as the ambitions of individuals and certain groups, at the intersection with science's responsibility for co-creating social order (at least in a declarative sense). Nevertheless, articulating scientific arguments is not difficult, even at the current rate of proliferation of scattered detailed knowledge, much of which is protected by confidentiality clauses.

Perhaps the clearest example is the continuum of research into the phenomenon of 'personal safety'. It is defined by two key poles: the nurturing of health from conception to inevitable natural biological death – and the countering of health risks, with an emphasis on the deliberate causing of premature death. An extreme example of the destructive pole is the intentional and actualised murder of a person, but also suicide. Since this continuum is so obvious, and the central position of health and a dignified life is beyond question for people of sound mind and with a creative syndrome of power [1], it makes even less sense to assign hierarchical weights to the key components of health: physical, mental and social. They are all equally important.

The situation is different when it comes to the general perception of responsibility for health and respect for responsibility for individual components. The primary responsibility for the physical and mental health of an adult lies with the individual themselves. Parents or other legal guardians are directly responsible for the personal safety of minors. Responsibility for social health lies with the governments of individual states. Whilst governments have the tools to control and impose restrictions on individuals who harm physical or mental health (or both dimensions of health simultaneously), societies are no longer in such a comfortable position. On the contrary, due to the passivity of governments, and even more so as a result of the creation of counterproductive laws, the spread of numerous pathologies is becoming a common occurrence. All too often, this results in lenient punishments for the perpetrators of even the most heinous crimes and other offences, yet governments are not brought before the courts. A key factor in the deepening crisis of personal security within the global society of the Internet and AI is the lack of coherent recommendations from the scientific community, including those of a complementary nature.

The aim of this work is to propose an original scale of weekly psychomotor activity, with the potential for its application beyond scientific research.

2. Materials and Methods

Main presumption and assumption

We are editing this paper in accordance with the original paper format. The fundamental premises of this study are our accumulated experience, spanning three generations, in experimental and teaching activities (at academic level and in sports training with children and adults), physiotherapy, and complementary preventive medicine within an innovative psychomotor framework.

We have omitted the review section, as the available literature on the epidemiology of the various phenomena specific to each of these health components, the effects of clinical interventions, and other related issues, exceeds the scope of what can be optimally summarised in a single article. We focus on the methodological factor common to all research activity – providing knowledge about the objects under study in such a way as to eliminate ambiguities that could significantly distort the interpretation of observational results (measurements taken) or even prevent breakthrough discoveries from being made. Especially since, in this case, the information concerns people acting with varying frequencies in diverse external environments and under different internal circumstances (health status, aspirations, stress, motivation, etc.). In many research reports, including those employing highly innovative methods and precise measurement tools, information about the subjects observed is often very sparse. For example, categorising people as 'physically inactive' without recording data on the most important environmental stimuli is generally just as inadequate as reducing information about the remaining individuals to the label 'physically active', thereby omitting many significant details.

What is referred to as 'physical' activity is, in reality, a variety of ways in which the mental aspect is engaged during muscular exertion. From a multifaceted perspective, personal safety is, after all, essential information for identifying groups of people whose bodies may react to given stimuli in three different ways: positively, negatively or indifferently. Furthermore, during observations based on motor simulations related to personal safety, it is precisely the knowledge of accumulated psychomotor experiences from the past and current activity, evaluated in relation to weekly cycles, that may prove to be the most important factor in discoveries of significant or fundamental practical value.

Delphi method

The 'results' section presents the weekly psychomotor activity indices (WPAS Index). These indices were developed by the authors using the Delphi method [2], taking into account three categories of stimuli: counterproductive '0'; increased impulse force without guaranteeing an optimal level of personal security, from '1' to '7'; positive impact on personal safety, from '8' to '10'.

This is an open framework and may be expanded as new, reliable recommendations emerge, provided that this list does not include activities that run counter to the promotion of any of the dimensions (components) of health. The seriousness of this problem from the perspective of public health quality is evidenced by the distinction made for this third category of stimuli, which includes recommendations for the unique methods and measures of INNOAGON [1, 3-8]. Unfortunately, so far only reports from pilot and clinical trials are available, but there is a lack of information on implementations on at least a regional scale.

3. Results

WPAS Indexes from 1 to 7 indicate an 'increasing intensity of the stimulus, though without any guarantee of a corresponding increase in personal safety'. Therefore, the higher the index number, the stronger the stimuli affecting the body, and this is the key message from the perspective of assessing personal safety using this tool. However, this means that there is a greater likelihood of either positive health effects, taking all its components into account, or of various risks, the identification of which (as in the case of the 'counterproductive' category) is not addressed in detail in this research tool. For this alternative line of reasoning to yield cognitive and/or practical benefits, the person using the WPAS Indexes must possess a wide range of competencies across multiple areas of knowledge and practice. WPAS Indexes 8 to 10 relate to the INNOAGON recommendations (Table 1) and, although they are formulated in very general terms, it is clear that the details (including those concerning research findings) are contained in numerous publications that explicitly state their dedication to this new applied science. These three indices serve, as it were, as a guarantee that every activity they refer to enhance personal safety.

Table 1. The eligibility criteria for the Weekly Psychomotor Activity Scale (WPAS Index) based on the authors' long-term research and experience in clinical, preventive, academic and sporting contexts.

WPAS Index	Categories of stimuli
	Counterproductive
0	sedentary lifestyle (particularly work at a computer) and at the opposite end of the continuum there is a very high risk of loss of life or health as a result of motor activity or conscious accumulation of other stimuli
increased impulse force without guaranteeing an optimal level of personal security	
1	occasional recreational or survival activities; interventional physiotherapy sessions; various weekend activities (e.g., gardening, games); walking 3 times; physical education during studies
2	various efforts, including those specific to the field of study (2 or 3 times); school physical education; 4 or 3 times; physiotherapy sessions
3	daily: walk (nordic walking), physiotherapy sessions, golf, playing instruments, manual arts, recreational horseback riding, motocross; strength training (4 times); dogtrekking (4 times); exercises with a personal trainer or sports discipline (4 or more times)
4	cyclical (at least 5 times) one of these forms or a combination of several: aerobic, cycling, dance, rollerblading, running, skateboarding, strength training, swimming; at least 2 health activities per week with 4 or more years of past combat sport experience in category A or B
5	daily or cyclical (at least 5 times) aikido training; capoeira training; various efforts; dance; self-defence training or combat sports (category A or B); daily military training (police, professional fire-fighters, etc.); regular sports for children or teenagers (circus artists etc.)
6	daily military training of elite units (special forces, pilots, anti-terrorists, etc.); semi-professional sport
7	**professional sport:** A judo, sumo, wrestling; B fencing, jujitsu, karate, taekwondo, UNIFIGHT; C boxing, kick-boxing, Muay Thai boxing; D individual strength disciplines (competitions); E individual endurance disciplines (competitions); F all-around competitions; G gymnastics, diving, ski jumping,

	freestyle skiing, figure skating; H rocket sports; I team games; J luge; K bobsleigh; L animal racing or other forms of horse riding; M racing using motor vehicles
positive impact on personal safety	
8	daily: physiotherapy sessions; relaxation and concentration exercises, dance (each form supplemented with 4 or more sessions to reduce the extreme consequences of unintentional falls and collisions with stationary and moving objects) under the guidance expert
9	daily: tai chi, qigong, or yoga sessions (each form supplemented with 3 or more sessions to reduce the extreme consequences of unintentional falls and collisions with stationary and moving objects, also with elements of verbal and behavioural self-defence and first aid) under the guidance expert
10	daily INNOAGON sessions under the guidance of an expert

4. Discussion

It is not only because of the first part of the journal's title – *Archives of Budo* – in which we are publishing this paper that we continue to emphasise the leading role of a certain category of combat sports in optimally stimulating personal safety throughout ontogenesis. The term 'budo', borrowed from Japanese culture and tradition [9], did not appear by chance, nor was it by chance that, as late as the end of the twentieth century (1978), it was censored by the communist government of Poland. Admittedly, Jan Harasymowicz, behind the *Iron Curtain*, received the authorities' approval to publish basic information on this phenomenon, but in an article entitled *Philosophy of Karate* (in Polish, *Filozofia karate*) [10, 11]. A few years later, the appealing term 'martial arts' became popular worldwide, with hand-to-hand combat (fighting) evoking even stronger associations with brutality. Yet the opposite has happened. Disguised under the name 'mixed martial arts' (MMA), bloody spectacles in cages have returned irrevocably as modern-day gladiatorial games, softened in a sense along Etruscan lines [12]. Killing directly inside the cage or in the ring is prohibited, but has anyone ever been held criminally liable for the death of a person resulting from physical injury (particularly to the brain) during a brutal fight in these public venues? – a rhetorical question.

The dynamics of events, even when viewed through a condensed historical lens, reveal the perpetual dilemma of a certain section of the population's fascination with the brutal slaughter that takes place during hand-to-hand combat, alongside the concern of influential representatives of that population to safeguard the right to such spectacles. Now, with a touch of sarcasm – but mixed martial arts (after all, it is one of many martial arts, and it is precisely this diversity that defines a nation's high culture) are, in the view of the most determined MMA propagandists, a 'humanised' version of hand-to-hand combat, and this is presumably why individuals and organisations concerned with the humane treatment of animals (the effectiveness of which is most clearly demonstrated by the outright ban on animal fighting in many countries) fail to recognise the problem when it comes to humans.

The reactions of academics from the opposite end of the spectrum of hand-to-hand combat research are different. INNOAGON experts (applied science of 'innovative

agonology' [1, 3-8]), base their programme on psychomotor activity from the perspective of personal safety on models inspired, amongst other things, by the ideals and traditions of budo, but also by universal values. In our view, the most striking evidence of this intellectual and ethical stance is the decision to cease publication of the branch journal *Archives of Budo Science of Martial Arts and Extreme Sport* (first edition 2013) from 2024 onwards, at a time when the journal had been awarded its first Impact Factor (1.2) [13-15]. In circumstances where there is a favourable climate for reaping profits through the expansion, within the social sphere, of events associated with the attractive term 'martial arts', we are, in accordance with this, exposing the pathology of MMA within the broader context of public health. And this pathology unmasks the contemporary capabilities of sophisticated camouflage of power and camouflage of violence. The Internet, which is the main tool for concealing these objectives, is, paradoxically, useful in enabling everyone to verify in real time which approach is gaining greater public acceptance: martial arts in their pathological motor form versus intellectual-behavioural approach of innovative agonology, which is also based on elements of hand-to-hand combat that serve solely to improve health. For the time being, we leave open the question of whether the trainers (educators) of future versions of AI will deliver a product of such high quality that innovative agonology will not be discriminated against in any way. This is, of course, a metaphor, since, according to the regime [16, 17], there is no such thing as innovative agonology, after all, names apply only to things, if language is to be precise. Therefore, there is also no such thing as 'science', 'methodology', 'MMA', etc., but there are people who, by virtue of their defined and verifiable competences, are rightly identified with these apparent names.

Contrary to appearances, pitting the new applied science of innovative agonology versus mixed martial arts is not naive. As things stand, science's triumph is clear. The promoters and propagandists of neo-gladiatorial combat have not been granted a unique gift – a journal indexed in the most prestigious literature database, whose title includes the phrase 'Science of Martial Arts". After all, in the global scientific landscape, there are no indexed journals bearing the names of even the 'most lucrative' sporting disciplines.

At this point, we would like to highlight the exceptional role played by the experts at Clarivate Web of Science in the emergence of both the niche journal 'Science of Martial Arts' (2013), and the expansion, two years ago, of the *Archives of Budo* to include the *Journal of Innovative Agonology*. It all began, however, in 2010, when *Arch Budo* was awarded its first 2-year Impact Factor (0.488) and, immediately afterwards, 5-IF (0.542). This is a significant development, given that the Editor-in-Chief had not submitted an official application for the journal's evaluation. This means that, for some time now, even amongst experts professionally involved in the global evaluation of academic journals, there have been those who recognise the exceptional cognitive-behavioural potential of certain hand-to-hand combat systems as unique means of enhancing personal safety throughout an individual's lifetime. Naturally, this requires

the indispensable involvement of competent professionals. We have not used the term 'martial arts', in place of 'hand-to-hand combat'. To explain why would be an insult to the reader's intelligence.

The consistency of our position is evident in the 'WAPS Index 5' classification of combat sports into contractual categories A and B, rather than all such sports. Boxing is an obvious relic of ancient gladiatorial combat. The possibility of securing victory by causing a competitor to suffer a brain commotion runs counter to the principle of basing personal safety on safe methods of countering potential physical aggression. This does not alter the fundamental implication that, since in certain circumstances of self-defence the taking of an aggressor's life does not give rise to criminal liability, the striking techniques used in boxing are adequate means of defence. However, training sessions in boxing are quite different from public spectacles, where the risk of even causing a person's death is very high during this form of hand-to-hand combat –given that causing a brain commotion is permissible.

Pierre de Coubertin and the organisers of the first modern Olympic Games in Athens in 1896 understood these arguments. They regarded boxing as an 'ignoble' sport (as the authors of historical texts so elegantly put it) and did not include it in the official competition. And this, in a sense, is the crux of the argument regarding personal safety within the broader context of health in all its dimensions.

In any serious discussion on personal safety, particularly one based on scientific analysis, overlooking the topic of combat sports – along with issues relating to the pathological aspects of hand-to-hand combat – would not only be an indication of compliance with current political correctness, but also a missed opportunity to make important discoveries. Only in a truly free science, unhindered by such restrictions, is it possible to make genuinely groundbreaking discoveries, even within specific disciplines that are not conventionally regarded as among the most prestigious. Given that science is a single entity, and its uniqueness lies in the unhindered emergence of ever-new scientific disciplines, sub-disciplines and specialisms, it should come as no surprise that there was a very brief moment in recent human history when the science of martial arts could justifiably have emerged. Experts at Clarivate also accurately identified this moment two decades ago, when the journal *Archives of Budo* first appeared (soon to be distinguished by an Impact Factor), followed in 2013 by *Archives of Budo Science of Martial Arts and Extreme Sport* [13]. Thanks to these experts, it was one of the earliest publications to be evaluated in Thomson Reuters *Emerging Sources Citation Index*. However, it is precisely the circumstances that make it all the more serious to describe the science of martial arts as an ephemeral, specialised discipline that provide a strong argument for communicating the following finding: the simplest and most reliable indicator of social health is the extent to which a given nation accepts gladiatorial combat.

Boxing had already been featured at the 1904 Olympic Games in St Louis (the third edition of the modern era), but in 1912 the principled Swedish public refused to allow

this relic of gladiatorial combat to be included in the programme of the V Olympic Games in Stockholm. These significant facts are not isolated examples of how a nation's level of acceptance of gladiatorial combat serves as an accurate indicator of social health and can be used in analyses of almost any historical era. For example, in 1726, Empress Catherine I issued a decree introducing rules for fistfights, which were widespread in Russian cities at the time. She also obliged the city guard to exercise control over them in order to reduce the death toll, at least to some extent [18]. The fact that the streets are not, to this day, as impressive an arena as the Roman Colosseum is merely proof that form is not the most important thing, provided that the objectives are achieved (the most essential of which has remained unchanged for millennia: the satisfaction of people's most basic needs, which for the purposes of this publication we refer to as the 'gladiatorial syndrome'). That is why we repeatedly emphasise that, in the modern world, mixed martial arts are one of the most appealing and arguably the most sophisticated forms of camouflaging this syndrome. Whilst the Internet and other cyber-technology platforms provide round-the-clock access to scenes saturated with extreme brutalisation of interpersonal relationships – not exclusively due to hand-to-hand combat – live MMA is a somewhat perverse way of offsetting the positive effects of any moral anxiety [19] felt by some individuals. This difficult and complex issue can perhaps be reduced, to stimulate the imagination, to the following example: 'I am not alone in my needs and interests, since I am surrounded by thousands of spectators at this MMA event'.

However, in this WPAS Index 5, we recommend – in addition to judo, sumo and wrestling (conventional Category A) – three combat sports listed in Category B, in which strikes with both hands and feet are permitted. This is a kind of compromise, as karate and taekwondo, in addition to the *kumite* (combat) format, offer non-contact forms: in karate, these are *kata* [20]; in ITF taekwondo *poomse* and three further safe training forms [21, 22]. UNIFIGHT is not an Olympic sport, but is clearly tailored to the specific motor skills required for intervention in military, police and counter-terrorism operations, etc. The first of the three rounds is a special obstacle course [23-25]. We do not consider fencing and kendo to be distinct disciplines due to the protective gear used, which provides optimal body protection. This does not alter the fact that, throughout the long history of fencing, there have been fatal incidents resulting from the breaking of the weapons (blades) used by fencers.

In the field of sports epidemiology, it is difficult to identify any sport in which no fatal incidents have been recorded, quite apart from very serious and life-threatening physical injuries. This is the ultimate price of professional sport.

Some authors draw attention to the paradoxes of two very popular combat sports: judo and karate. Judo students are taught safe falling techniques (jap. *ukemi waza*) from the very first training session, whilst the fundamental condition for victory is precisely to throw an opponent off balance and cause them to fall onto the mat. For a long time now, epidemiological statistics have provided evidence that the first peak in injury

rates amongst novice judo practitioners occurs after a few months, coinciding with the start of sparring sessions (randori). Although they are technically capable of falling safely, when thrown off balance they make the mistake of colliding with the mat in an attempt to avoid an ippon or wazari – most often by bracing themselves with their hand. Additional causes of physical injury (e.g. broken ribs) during randori, when a person has fallen after being thrown by an opponent, include that opponent landing on top of them. The failure of the person who caused the incident to fulfil their duty to protect the other person's body upon impact with the mat is, unfortunately, an issue that is overlooked in specialist judo literature and in reports on the epidemiology of sports injuries.

The paradox of karate, however, is that amongst those starting karate training, hand injuries most often occur within the first month. It is precisely at this stage that falling onto an unpadded surface is the cause [26, 27], yet *ukemi waza* is not part of the methodology of this combat sport, which also has Japanese origins. In judo, during periods of peak tournament activity, injuries are most commonly found in the hand/fingers (up to 30%), the knee (up to 28%), shoulder (up to 22%) [26-29]. Do not differ between European and World Championships, and between men and women [30]. In karate, the most common areas of injury are the head and neck (46% to 57.9% of all injuries) [31, 32], whilst in kyokushin karate in particular, injuries to the lower limbs account for 30–40% [33].

This is one of the reasons why Robert Bąk, in his definition of 'extreme forms of physical activity' (EFPA) – based on the opinions of leading experts (as he employed the Delphi method) – 'include all professional activity or voluntary service as well as all varieties of physical activity that fulfil at least one classification criterion of the feature associated either with extreme risk of injury or death, or extreme body burden with high level of effort, or extreme coordination difficulty' [34, p. 20]. Consequently, every professional sport discipline meets this criterion for a fundamental reason. The number of training sessions per week exceeds the number of days, so there is a risk of accumulating exertion that exceeds an individual's capacity to tolerate it. Furthermore, individual sports differ in terms of coordination difficulty and a third criterion comes into effect: threat to health or life mainly related to external factors, such as the terrain, weather, equipment used, facilities, etc.) [30]. In combat sports, a key factor is the scope of permissible actions directly targeting the athlete's body and the opponent's ability to utilise these options, whilst running the risk that, in certain circumstances, these rules may be flagrantly breached. If, in the case of a specific individual, these three criteria are close to their maximum levels, intervention is necessary to prevent a deterioration in personal safety.

Therefore, one of INNOAGON's fundamental principles is to exercise limited trust in recommendations that certain disciplines are 'sports for life'. The above examples of the epidemiology of physical injuries in judo and karate lend credence to the hypothesis

that a significant proportion of these incidents stem from gaps in instructors' competence.

We draw attention not only to the content of our bilingual (English, Polish) recommendations, but also to the dates: *Combat sports propaedeutics – basics of judo*, 2003 [35]; *Honourable self-defence – the theoretical and methodological basis of training*, 2006 [36]. Both textbooks present a methodology for securing a falling person, including examples of playful activities designed to hone this skill. Its reliability has been confirmed through its application in the education of physical education and physiotherapy students at four Polish universities. Whilst the publication process for *Combat sports propaedeutics …,* was underway in Poland, the reliability referred to above was verified during two courses for physiotherapy students at a university in Brazil. The absence of any injuries during the exercises is the fundamental argument and, in a sense, the sole quality criterion for dispositional feasibility, as this skill is not directly verified by any test. However, the most valuable evidence of effectiveness at the level of situational actionability is the case of a 24-year-old physiotherapy student: 'Agnes (…) was travelling by bus when the driver stopped suddenly. An old man (about 190 cm, more than 100 kg) standing next to her fell forward with huge force. Agnes grabbed his arm and gently slid him to the floor of the bus unharmed' [37, p. 214]. In the moment of this event, Agnes were already graduates of both courses of safe falling: the first course 'Theory and methodology of safe falling of the blind people' (10 hours of lectures,10 lessons of exercises); second course'… safe falling of people after amputations' (the same structure of lectures and exercises) [37, 38].

The two praxeological terms used above ('dispositional feasibility' and 'situational actionability') emphasise that it is precisely the concepts of praxeology [39, 40] that are of a higher level of generality than the language of INNOAGON [4]. Since praxeology is regarded as a general methodology, as it formulates universal principles for the effective achievement of the goals of all mental and physical activity, and since it is difficult to imagine a situation in which a person could act effectively physically without the involvement of the mind, the validity of the critique of the physical activity paradigm becomes increasingly clear. What would be the point of interpreting Agnes's reaction based solely on the language of the physical activity (or, more broadly, on the language and theories of sport science)? This is all clearer when we enter the realm of an instrumentalist's musical performance, where the motor component is a constant element. Similarly, in the case of dance, the meaning of which cannot be imagined in isolation from music. The same applies to the following sporting disciplines: artistic gymnastics, figure skating and synchronised (artistic) swimming.

The praxeological terms listed above are two of the three specific manifestations of the phenomenon of possibility of action: 'is the strength, intellectual or manipulative prowess, knowledge (skill) and willingness sufficient to perform a given action' [39, p. 124]. The circumstances described regarding Agnes's education and her 'psychomotor response' in a situation of real danger posed by a man who, due to an external stimulus,

suddenly lost his balance, provide a good example of the justified use of the praxeological term 'Complete possibility of action' ('dispositional' and 'situational').

However, it is only justified in certain circumstances to combine the WPAS Indexes with an accurate assessment not only of 'complete possibility of action' but also, to some extent, of 'dispositional feasibility'. The fact that a child takes part in at least one session of playing an instrument every day (WPAS Index 3) does not in itself guarantee that their willingness sufficiency. Often, this activity is the result of pressure from parents (or carers). Only superficially is the dilemma less significant in sport. Therefore, simply recommending a type of activity requiring muscular effort – even when specifying the number and duration of weekly sessions – and enforcing these arrangements has limited value in relation to the anticipated health benefits. It is easier to make a case using effectiveness indicators based on criteria such as sporting, military or police applicability, etc. For example, the effectiveness of kettlebell exercises in the aspects of special efficiency training in football [41] or the influence of long-term moderate-intensity physical exercise on shooting efficiency [42].

From a methodological point of view, the word 'easier' is used very precisely in the passage above. Michał Kruszewski et al. [43] in their analysis of the results of the testing fight in vertical posture (TFVP) between girls and boys applying for admission to the judo section, based on the sumo formula [44, 45] and applying the INNOAGON criteria (and thus using basic praxeological terminology), argue as follows regarding the estimation of the 'willingness sufficiency' factor in the calculations carried out: 'We assumed that willingness sufficient to perform a hand-to-hand fighting during TFVP was similar in all participants' [43, p. 1462]. Earlier, in the 'Introduction' section, the authors state that 'During the aforementioned recruitment procedures of adepts to leading judo clubs throughout Poland, some coaches organized TFVP on their own initiative, in which boys and girls participated together – with the approval of the participants and the consent of their legal guardians' [43 p. 1461]. However, Elizabeth Waszkiewicz and Artur Kruszewski [46] applying praxeological criteria to measure the phenomenon of possibility of action as part of a unique experiment assessing the artistic-motor effects during violin tuition, with a focus on preventing the unintended consequences of falls, adopt a ten-point scale of motivation – measured before, during and after each individual session with each of the three young violinists – as the criterion for 'willingness sufficiency'.

It is difficult to assess a priori what cognitive and practical benefits the use of the WPAS Indexes will bring to future scientific research. This is particularly so given that the results of secondary testing fight analyses based on INNOAGON criteria (conducted in vertical posture, and repeated with the same individuals in horizontal posture, which military cadets performed a quarter of a century ago [47]), reveal new and interesting methodological perspectives (including the need to use the omitted implications method).

5. Conclusions

The inclusion of WPAS in scientific analyses of indicators recorded particularly during interdisciplinary research opens up new avenues for cognitive and practical applications. Even if, in the initial conceptualisation of research projects involving human subjects, the factor of weekly psychomotor activity appears to be of little significance, new scientific discoveries, even after many years, present an opportunity to apply the innovative method of reviewing omitted implication. This recommendation refers to the not always recognised dimension of scientific solidarity and responsibility for the collective fulfilment of science's social mission (not to discard raw research data and to be open to sharing it with other researchers whilst respecting the principles of priority and reciprocity).

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